



## Related Standards:

## Sound: *Kazoo*

### Change the Pitch

To change the pitch, slide the straws closer together or farther apart. When you slide them closer together, the section of rubber band that is vibrating is shorter, so it makes a higher sound. Slide the straws all the way to the edges to get the lowest possible sound (which is still pretty high, but lower).

### Materials:

- 2 Jumbo Popsicle Sticks
- 2 pieces of 2 in. straw
- 1 Large Rubber Band
- Markers/Stickers (optional)
- 2 Small Rubberbands

### Instructions:

1. Stretch your large rubber band horizontally across the full length of popsicle stick.
2. Take one 2 in. piece of straw and sandwich it between the two popsicle sticks.
3. Secure the straw by wrapping a small rubber band around the end of the popsicle sticks.
4. Make sure you're tying the rubber band on the outside of the straw.
5. Repeat steps 3 and 4 on the opposite end.
6. Take a deep breath and blow into your sound sandwich!
7. Try blowing faster and slower to notice the difference in pitch and sound.



### What's the science behind it?

Sound is caused by vibrations. When you blow, the wide rubber band vibrates and makes a sound.



## Related Standards:

4-LS1-1

## Sound: *Rainstick*

### History of the Rainstick

Legend has it that the Chilean Indians invented the rainstick to make rainy weather. The rainstick is a type of tubular rattle that throughout the ages, has been used by many cultures in various ways.

The rainstick has an unusual internal structure. An interior maze formed of either cactus spines, wooden pegs, bamboo or palm slivers distinguishes the rainstick from other tube rattles. The cylinder is filled with pebbles, hard seeds, beans, sand, rice, or tiny shells.

### Materials:

- Paper towel roll
- Rice, beans, beads
- Clear tape
- Wax Paper
- Small and Large sheet of aluminum
- Colored Paper (optional)
- Funnel (optional)

### Instructions:

1. Begin by twisting your large and small sheets of foil into a stick-like shape.
2. Next twist the small foil stick around the paper towel roll to help create a foil spiral.
3. **CRITICAL STEP:** Insert the smaller spiral into the larger spiral.
4. Secure one end of the rainstick with duct tape.
5. Insert your spiral coil into the tube.
6. Next, fill the opposite end with beans, beads, and rice using a funnel.
7. Secure the open end of the rainstick with duct tape.
8. Wrap your colored paper around the paper towel roll and secure it with tape or add any additional decorations to your liking.
9. Slowly tilt the rainstick back and forth to make the sound of rain!



### What's the science behind it?

A **rainstick** is a long, hollow tube partially filled with small pebbles or beans that contains aluminum foil made in a spiral shape. When the stick is turned upside down, the pebbles fall to the other end of the tube, making a noise that sounds like rain falling.